ATTACHMENT J2

Picatinny Service Water System

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J2 Picatinny Service Water System

J2.1 Picatinny Overview

Picatinny (or the Installation), located in New Jersey's Morris County, approximately 40 miles west of New York City, has over 1,000 buildings, and covers nearly 6,500 acres. The Installation Management Agency is the proponent for all Installation infrastructure and support operations at Picatinny. Tenant organizations include the Armament Research, Development and Engineering Center (ARDEC), Program Executive Office for Ammunition, Program Executive Officer for Ground Combat Support, and the Program Executive Office for Soldier. The Installation is commanded by a Brigadier General, who is also currently the Program Executive Officer for Ammunition.

J2.2 Service Water System Description

J2.2.1 Service Water System Fixed Equipment Inventory

Picatinny employs a service water system that is totally separate from the potable system. The system supplies water for industrial processes, boiler make-up, non-contact cooling, fire suppression, building sprinklers, deluge systems, and flush water for numerous restrooms. The system also provides irrigation for an 18-hole golf course; however, the golf course sub-system is maintained by golf course personnel and is excluded from privatization. Service water is neither treated nor chlorinated since chlorine residuals would be incompatible with some industrial applications. The actual inventory of items sold will be conveyed to the Contractor using the Bill of Sale (sample shown at Attachment J42) at the time the system is transferred.

The following description and inventory is included to provide the Contractor with a general understanding of the size and configuration of the distribution system. The description and inventory were developed based on best available data.

The Offeror shall base its proposal on site inspections, information in the technical library, and other pertinent information, as well as the following description and inventory. If after award the Offeror identifies additional inventory not listed in Paragraph J2.2.1.4, the Offeror may submit to the Contracting Officer a request for an equitable adjustment. If the Offeror determines that the inventory listed in Paragraph J2.2.1.4 is overstated, the Offeror shall report the extent of the overstatement to the Contracting Officer, who will determine an equitable adjustment.

J2.2.1.1 System Description

WATER PRODUCTION AND STORAGE

Raw service water is pumped from two lakes on the Installation. Each lake supplies a separate area of the distribution system resulting in two distinct service water storage and distribution systems. The two systems are not interconnected.

Lake Picatinny, with a volume of 560 acre-feet and a surface area of 100 acres, supplies approximately 95 percent of the service water for the Installation. Three centrifugal pumps located in the Power House (steam generating plant, Building 506) pull lake water through coarse intake screens and fill a cluster of ground storage tanks (623, a, b, c, d, and e). The water is then distributed into the service water system, replenishing ground storage Tanks 75, 75a, 639, as needed. Water levels are monitored visually in the Tank 623 cluster with no telemetry or water level sensors currently in use. Raw service water is not metered at the Power House; however, pump run time records are maintained by Power House personnel, which are then translated in estimates of the volume of water delivered to the system. Estimated pumped volumes average 450,000 to 500,000 gallons per day. Pressures in the lower areas of the average 80 pounds per square inch (psi).

Lake Denmark, with a volume of 1,015 acre-feet and a surface area of 280 acres, provides service water for the 1500 and 3500-3800 areas. Two (2) raw water pumps located in Building 1219 pull water through a coarse screen intake and lift it into Tank 1500 for distribution. Estimated flow, based on pump run times, averages 25,000 to 30,000 gallons per day. The water level in Tank 1500 is monitored remotely at the Water Treatment Plant.

SERVICE WATER DISTRIBUTION SYSTEM

The service water system consists of approximately 138,000 feet of mains and lateral lines ranging in size from less than 2 inches to 12 inches. The service water system generally serves those buildings with numbers smaller than 100, 100-900, 1500, 3500, and the 3800 group (approximately 110 buildings). The majority of the system was constructed in the 1940s and has been extended to accommodate additional buildings. Since the water is not treated, there are frequent problems associated with leaking valves that do not seat, water odor, etc. Spent service water, not used for non-contact cooling, is discharged to the sanitary wastewater collection system. A large percentage of the one-pass cooling water is discharged directly to the environment at eight EPA New Jersey Pollution Discharge Elimination System (NJPDES)-permitted outfalls.

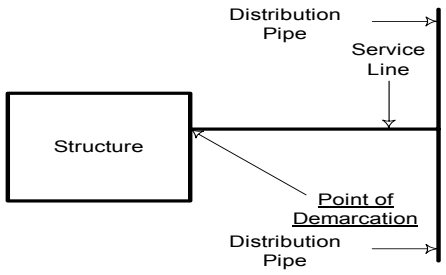
J2.2.1.2 Points of Demarcation

The Picatinny service water system being studied consists of all components from the point where the Installation takes ownership from the supplier to the point where water is supplied to

end-users. The point of demarcation for each end-user is defined as the point or component on the distribution system where ownership changes from the utility owner to the building owner. In most cases the point of demarcation is the point at which the service line enters the facility

Table 1 identifies the type of service and general location of the point of demarcation with respect to each building served by the distribution system.

TABLE 1
Points of Demarcation
Service Water System, Picatinny, New Jersey

Point of Demarcation	Applicable Scenario	Sketch
Point where the service line enters the structure.	All structures served by the service water system.	

J2.2.1.3 Condition Assessment

The Army-owned service water system at Picatinny pumps and distributes all service water required. The service water distribution system is very old and it has been estimated to be leaking 48,000,000 gallons of water per year.

J2.2.1.4 Inventory

Table 2 identifies the inventory of the Picatinny service water system. When not specifically identified by system drawings, the size and type of system components were estimated generally based on the size of the piping the component was connected to. Additionally, when the year of construction was not known, it was estimated based on the age of the piping or the age of the facility served. The system will be sold in a "as is, where is" condition without any warranty, representation, or obligation on the part of Government to make any alterations, repairs, or improvements. Ancillary equipment attached to, and necessary for, operating the system, though not specifically mentioned herein, is considered part of the purchased utility.

TABLE 2
Fixed Inventory
Service Water System, Picatinny, New Jersey

Component	Size	Quantity	Unit	Approximate Year of Construction
Pipe	<2" – 2"	800	LF	1930s
	<2" – 2"	13,040	LF	1940s
	<2" – 2"	960	LF	1950s
	2½"	280	LF	1930s
	2½"	400	LF	1940s
	3"	2,560	LF	1940s
	4"	1,840	LF	1930s
	4"	4,480	LF	1940s
	4"	1,400	LF	1950s
	6"	7,600	LF	1930s
	6"	34,200	LF	1940s
	6"	6,480	LF	1950s
	8"	11,320	LF	1930s
	8"	10,960	LF	1940s
	8"	13,400	LF	1950s
	8"	1,280	LF	1970s
	10"	1,240	LF	1930s
	10"	5,400	LF	1940s
	10"	5,720	LF	1950s
	12"	1,760	LF	1930s
	12"	11,920	LF	1940s
	12"	1,400	LF	1950s
	Total Pipe	**138,440**		
Main Valves		224	EA	1960s
Post Indicator Valves		229	EA	1960s
Fire Hydrants		192	EA	1960s
Elevated Storage Tanks				
Tank 1500	100,000 gal	1	EA	1965
Ground Storage Tanks				
Tank 75	100,000 gal	1	EA	1970
Tank 75A	100,000 gal	1	EA	1970
Tank 623	50,000 gal	1	EA	1950
Tank 623A	50,000 gal	1	EA	1950
Tank 623B	50,000 gal	1	EA	1960

Component	Size	Quantity	Unit	Approximate Year of Construction
Tank 623C	50,000 gal	1	EA	1960
Tank 623D	50,000 gal	1	EA	1960
Tank 623E	50,000 gal	1	EA	1960
Tank 639	50,000 gal	1	EA	1960
Pump Stations				
PS 506A	1 @ 30 HP		EA	1940
PS 506A	2 @ 30 HP		EA	2004
Booster 639	1 @ 20 HP		EA	1965
PS 1219	1 @ 75 HP		EA	1970
PS 623	1 @ 60 HP		EA	1998

Notes:
EA = each HP = horsepower
LF = linear feet gal = gallons

J2.2.2 Service Water System Non-Fixed Equipment and Specialized Tools

Table 3 lists other ancillary equipment (spare parts), and **Table 4** lists specialized vehicles and tools included in the purchase. Offerors shall field-verify all equipment, vehicles, and tools prior to submitting a bid. Offerors shall make their own determination of the adequacy of all equipment, vehicles, and tools.

TABLE 3
Spare Parts
Service Water System, Picatinny, New Jersey

Quantity	Item	Make/Model	Description	Remarks
Picatinny maintains an inventory of spare parts for the service water system. Contents of the inventory vary as items are used and/or purchased. Availability of this inventory to the new owner will be negotiated before or during the transition period.				

TABLE 4
Specialized Vehicles and Tools
Service Water System, Picatinny, New Jersey

Quantity	Item	Make/Model	Description	Remarks
No specialized vehicles or tools are included with the Picatinny service water system.				

J2.2.3 Service Water System Manuals, Drawings, and Records

Table 5 lists the manuals, drawings, and records that will be transferred with the system.

TABLE 5
Manuals, Drawings, and Records
Service Water System, Picatinny, New Jersey

Quantity	Item	Description	Remarks
Picatinny maintains a limited collection of technical manuals, SCADA operational manuals, drawings, and records on the installed components of the service water system. This information will be transferred to the new owner during the transition period. System maps will be available in the bidders' Technical Library.			

J2.3 Specific Service Requirements

The service requirements for the Picatinny service water system are as defined in Section C, *Description/Specifications/Work Statement*. The following requirements are specific to the Picatinny service water system and are in addition to those found in the RFP Section C, the requirements listed below take precedence over those found in Section C.

J2.3.1 Digging Permits and Utility Markouts

J2.3.1.1 Contractor-Provided Permits

If deemed necessary, Contractor shall participate in the Picatinny Environmental Affairs Office digging permit process. The Contractor shall complete the section of the application that may impact on the integrity of his Utility Systems and the safety of the requestors and return it to the Picatinny DPW within 3 working days of receipt of the digging request. As part of this process, the Contractor shall routinely accept and process digging permit requests from Government work force; military units; RCI partnership; maintenance, construction, and Army operations contractors; cable and phone maintenance and installation companies; fence rental companies; individual residents, and additional entities as identified by Contracting Officer to have a valid need for a digging permit. Contractor shall identify methodology of accepting, processing, approving, and listing reason(s) for disapproval. Contractor shall be responsible for all repairs, costs, and damages due to excavations by others for which he did not properly mark his utilities as part of the Environmental Affairs Office digging permit process.

J2.3.1.2 Picatinny Arsenal-Provided Permits

The Contractor shall first obtain digging permits directly from Picatinny Environmental Affairs Office for utilities owned by the Government before any drilling, digging, or excavation is undertaken. The Contractor shall provide a completed request for permit to the Environmental

Affairs Office for each permit not earlier than 15 days and not later than 5 days prior to the requested digging date. A digging permit for a specified area of excavation expires 30 days after the issue date; Contractor must re-apply for a new permit to perform excavation in the area if the excavation was not started within the 30-day period. Permits will identify all underground utilities within 1.5 m (5 feet) of the designated area. Contractor shall be responsible for all repairs, costs, and damages due to his excavations that fail to comply with the Environmental Affairs Office digging permit process, including excavations extending beyond areas that have been cleared for excavation.

J2.3.1.3 Utility Markouts

The natural gas distribution system on the Installation is owned by New Jersey Natural Gas Company. The Contractor shall contact New Jersey's "One Call" system at 1-800-272-1000 for a free markout of underground gas utility lines before any outdoor construction or digging occurs.

The electrical distribution system on the Installation is owned by Sussex Rural Electric Cooperative. The Contractor shall contact Sussex Rural Electric Cooperative at 973-875-5101 for a free markout of underground electric utility lines before any outdoor construction or digging occurs.

The majority of telephone lines on the Installation are Government-owned, with the remaining telephone lines being owned by Verizon. The Contractor shall contact New Jersey's "One Call" system at 1-800-272-1000 for a free markout of Verizon-owned underground telephone lines before any outdoor construction or digging occurs. The Contractor shall submit a service order to the Installation's base operations contractor for a free markout of the Government-owned underground telephone lines, as well as any other Government-owned underground telecommunication and utility lines, before any outdoor construction or digging occurs.

J2.3.2 Inspection and Maintenance Program

J2.3.2.1 Water Storage Tanks

The Contractor shall allow the Government access to operate and maintain any communication equipment, obstruction lights, emergency warning equipment, public address equipment, and other Government equipment on water storage tanks being privatized. The Contractor shall develop a procedure for granting the Government access. This procedure shall be submitted to the Contracting Officer for approval.

The Contractor shall adhere to Picatinny Installation Design Guides for all painting and markings on water storage tanks.

J2.3.2.2 Fire Flow

The Contractor shall perform flow testing and marking of fire hydrants IAW National Fire Protection Association standards/recommended practices. The Government reserves the right to review the Contractor's flow test records.

The Contractor shall operate, maintain, and test the Post water system IAW New Jersey Department of Environmental Protection (NJDEP). The Contractor shall provide the Contracting Officer with a copy of any and all testing information and reports submitted to the NJDEP.

The Contractor shall coordinate any changes to the water distribution system that may affect fire flow capabilities with Utilities Directorate and Picatinny Fire Department.

J2.3.2.3 Cathodic Protection System Maintenance

The Contractor shall own, operate, and maintain the water distribution system cathodic protection systems for carbon steel piping and tanks IAW applicable standards. The Contractor shall determine what is required and shall implement cathodic protection as necessary to comply with applicable rules and regulations. The Government reserves the right to review the Contractor's cathodic protection system records.

J2.3.3 Emergency Response

The Contractor shall respond with a knowledgeable individual to emergency problems within 30 minutes of notification during duty hours and within one hour during non-duty hours. Additionally, repair crews must be on scene within one hour during duty hours and within two hours during non-duty hours. Duty hours are defined as the hours from 0730 until 1630. Once work is initiated, work must progress without interruption until the emergency is rectified or downgraded, and at least temporary service has been restored.

J2.3.4 Meters

The Contractor shall operate, maintain, and calibrate all secondary water meters, IAW applicable standards and regulations. The Government reserves the right to review the Contractor's meter and maintenance and calibration records.

J2.3.4.1 Meter Reading

There are no existing meters associated with this system. Additional meters will be required as detailed in Section J2.5.2. Offeror shall read all meters and provide reports in accordance with requirements in Section J2.6.

J2.3.5 Fire Control and Safety

The Contractor shall abide by Picatinny fire protection requirements. The utility system purchased by the Contractor may include facilities. These facilities may or may not include fire alarm systems. Where required by federal, state or local regulation, the Contractor shall maintain the fire alarm system for all facilities owned and operated by the Contractor. The Contractor shall permit Fire Department personnel access to their facilities to perform fire inspections and emergency response.

J2.3.6 Restricted Access

The Contractor shall coordinate with and obtain written approval from Picatinny for restricted area access.

J2.3.7 Crisis Situations

IAW Paragraph C.9.8, *Exercises and Crisis Situations Requiring Utility Support*, the Contractor shall provide support as directed by Picatinny Utilities Directorate or equivalent agency for exercises and crisis situations. Contractor shall submit Emergency Response Plans for approval by the Government for all exercise and crisis situations IAW C.9.8.

J2.4 Current Service Arrangement

The Army-owned service water system at Picatinny pumps and distributes all service water required. There is no interconnection between the Installation service water system and potable water system.

J2.5 Secondary Metering

Between the point of delivery and the end-user points of demarcation, the Contractor shall own the existing meters, and shall install additional meters at new and upgraded locations as directed by the Contracting Officer. Contractor shall install or cause to have installed utility meters as requested by the Contracting Officer.

J2.5.1 Existing Meters

Table 6 lists the existing (at the time of contract award) meters that will be transferred to the Contractor.

The Contractor shall provide meter readings for all secondary meters IAW Paragraph C.3.3, *Metering*, and J2.6, *Monthly Submittals*.

TABLE 6
Existing Secondary Meters
Service Water System, Picatinny, New Jersey

Facility	Meter Description
None identified	

J2.5.2 Required New Secondary Meters

The Contractor shall install and calibrate new secondary meters as listed in **Table 7**. New secondary meters shall be installed IAW Paragraphs C.3.3.1, *Future Meters*, and C.13, *Operational Transition Plan*. After installation, the Contractor shall maintain and read these meters IAW Paragraphs C.3.3, *Metering*, and J2.6 below.

TABLE 7
New Secondary Meters
Service Water System, Picatinny, New Jersey

Facility	Meter Description
Three (3) meters	Meter locations and sizes will be at the water production facilities and detailed in the technical library

J2.6 Monthly Submittals

The Contractor shall provide the Government monthly submittals for the following:

1. **Invoice** (IAW Paragraph G.2, *Submission and Payment of Invoices*). The Contractor's monthly invoice shall be presented in a format proposed by the Contractor and accepted by the Contracting Officer. The invoicing format shall include the following:
    - the applicable contract number.
    - the specific contract line item numbers (CLINs) that are being billed against.
    - an adequate description of supplies/services, and quantities thereof.
    - the same company name as that appearing on the contract. (The Contractor is responsible for notifying the Government, in writing, of any change to the company name so that a formal modification can be executed.)
    - the name, title, and e-mail address/phone number of a point of contact for the Contractor.
    - the contractor's tax identification number.
    - use of the term "Invoice" in lieu of Statement or Bill.

The Contractor's monthly invoice shall include segregated costs IAW with each CLIN. Costs shall be segregated into two categories: costs associated with Housing areas and costs associated with non-Housing areas. The Contractor shall provide sufficient supporting documentation with each monthly invoice to substantiate all costs included in the invoice for each CLIN as approved by the Contracting officer. The proposed system of accounts shall be made available in electronic format as directed by the Contracting Officer. Invoices shall be submitted by the 25th of each month for the previous month. Invoices shall be submitted to:

Name: *GARRISON DIRECTORATE FOR UTILITIES & CONTRACT SUPPORT*
ATTN AMSTA-AR-PW (Mr. Rich Havrisko)
Address: Building 3002
Picatinny, New Jersey 07806-5000
Phone number: (973) 724-5520

2. **Outage Report**. The Contractor's monthly outage report will be prepared in the format proposed by the Contractor and accepted by the Contracting Officer. Outage reports shall be submitted by the 25th of each month for the previous month. Outage reports shall be submitted to:

Name: *GARRISON DIRECTORATE FOR UTILITIES & CONTRACT SUPPORT*
ATTN AMSTA-AR-PW (Mr. Rich Havrisko)
Address: Building 3002
Picatinny, New Jersey 07806-5000
Phone number: (973) 724-5520

3. **Meter Reading Report**. The monthly meter reading report shall show the current and previous month's readings for all secondary meters. The Contractor's monthly meter reading report will be prepared in the format proposed by the Contractor and accepted by the Contracting Officer. Meter reading reports shall be submitted by the 15th of each month for the previous month. Meter reading reports shall be submitted to:

Name: *GARRISON DIRECTORATE FOR UTILITIES & CONTRACT SUPPORT*
ATTN AMSTA-AR-PW (Mr. Rich Havrisko)
Address: Building 3002
Picatinny, New Jersey 07806-5000
Phone number: (973) 724-5520

J2.7 Energy Saving and Water Conservation Projects

In keeping with Paragraph C.3.4, *Energy and Water Efficiency and Conservation*, any projects that should be implemented or continued would be listed here.

- There are no projects identified at this time.

J2.8 Service Area

IAW Paragraph C.4, *Service Area*, the service area is defined as all areas within the Picatinny boundaries.

J2.9 Off-Installation Sites

There are no off-Installation sites included in the privatization of the Picatinny service water system.

J2.10 Specific Transition Requirements

IAW Paragraph C.13, *Operational Transition Plan*, service connections and disconnections required upon transfer would be included in **Table 8** below.

TABLE 8
Service Connections and Disconnections
Service Water System, Picatinny, New Jersey

Location	Description
Power House (Bldg. 506)	Pumps are located in Building 506, the power house for the steam heating system. The steam heating system is to be retired making it necessary for these pumps to be relocated to a new, dedicated building.

J2.11 Government-Recognized System Deficiencies

Table 9 provides a list of Government-recognized deficiencies. The deficiencies listed may be physical deficiencies, functional deficiencies, or operational in nature. If the utility system is sold, the Government will not accomplish a remedy for the recognized deficiencies listed. The Offeror shall make a determination as to its actual need to accomplish and the timing of any and all such deficiency remedies.

- Physical and functional deficiencies may require capital to be invested in the system. If any deficiency remedy requires a capital upgrade project, the capital upgrade project shall be proposed according to the following:
- Capital upgrade projects required to bring the system to standard shall be proposed under Schedule 3 – Initial Capital Upgrade(s)/Connection Charge(s).
- Capital upgrade projects required to replace system components shall be proposed in the first years of Schedule 2 – Renewals and Replacements – 50-Year Schedule, and the cost factored into Schedule 1 – Fixed Monthly Charge, for Renewals and Replacements as part of CLIN AA.
- Transition costs shall be proposed as a one-time cost and shall be treated similar to a capital project and included in Schedule 3 – Initial Capital Upgrade(s)/Connection Charge(s).
- Improvements proposed in the operational component of the work shall be included in Schedule 1 – Fixed Monthly Charge as part of CLIN AA.

TABLE 9
System Deficiencies
Service Water System, Picatinny, New Jersey

System Component	Deficiency Description
Entire System	The service water distribution system is very old and is leaking approximately 48,000,000 gallons of water per year. Virtually the entire system will require retirement and replacement within the first five years of privatization.
Storage Tanks	None of the service water storage tanks have cathodic protection
Entire System	Expand and upgrade telemetry and SCADA systems. Details of the existing systems are located in the Picatinny utilities privatization technical library.
Entire System	Develop Geographical Information System (GIS) for the service water system.
Entire System	Update and expand the service water system hydraulic model to assist in identifying restrictions and future capital improvements.